I. INTRODUCTION

Funds management is the core of sound bank planning and financial management. It encompasses the management of the bank's liquidity position or management of assets and liabilities to provide adequate resources to meet anticipated fund demands. It also encompasses management of the rate sensitivity of the bank's assets and liabilities to provide adequate net interest income. Although practices, techniques, and norms change periodically, the basic concepts are timeless.

The only sound basis for evaluating a funds management strategy is through a thorough understanding of the individual bank, its customer mix, the nature of its assets and liabilities, and the economic and competitive environment. No single perspective, theory, or structure can be university applied to all banks.

II. LIQUIDITY

Liquidity represents the ability to efficiently and economically accommodate decreases in deposits and other liabilities, as well as fund increases in assets. A bank has liquidity potential when it has the ability to obtain sufficient funds, in a timely manner, at a reasonable cost. Liquidity is essential in all banks to compensate for expected and unexpected balance sheet fluctuations and provide funds for growth. Liquidity has its cost which is a function of market conditions and the degree of risk, both interest rate and credit risk, reflected in the balance sheet. If liquidity needs are met through holdings of high quality short-term assets, generally the cost is in the income sacrificed by not holding longer term and/or lower quality assets. If liquidity needs are not met through liquid asset holdings, a bank may be forced to acquire additional liabilities under adverse market conditions at excessively high rates. The adequacy of a bank's liquidity will vary. In the same bank, at different times, similar liquidity positions may be adequate or inadequate depending on the anticipated need for funds. Likewise, a liquidity position adequate for one bank may be inadequate for another. Determination of the adequacy of a bank's liquidity position depends upon an analysis of the current liquidity position, present and anticipated asset quality, present and future earnings capacity, historical funding requirements, anticipated future funding needs, and options for reducing funding needs or attracting additional funds.

To provide funds to satisfy liquidity needs, one or a combination of the following must occur:

1. Disposal of liquid assets;
2. Increase in short-term borrowings and/or issuance of additional short-term deposit and deposit- like liabilities;
3. Decrease in holdings of long-term assets;
4. Increase in long-term liabilities; or
5. Increase in capital funds.

Developing assumptions with regard to the future by intelligent forecasting (as opposed to speculating) is essential to liquidity planning. Management must consider the effect future events are likely to have on funding requirements, as well as the probability of such events occurring. If management does not consider future events and postulate the bank's funding strategy accordingly, the bank will be run by the dictates of the economy, rather than by management. All banks are affected by changes in the economic climate, however, sound financial management can minimize negative changes and maximize positive ones. Management must also have contingency plans in case projections are incorrect. Effective contingency planning involves identifying minimum and maximum liquidity needs and weighing alternative courses of action designed to meet those needs.

Once anticipated and potential needs have been determined, management must decide how those needs will be met through asset management, liability management, or a combination of the two. Every bank should carefully deliberate all options to establish an optimum liquidity management strategy under various scenarios.

III. ASSET MANAGEMENT

Liquidity needs may be met by managing the bank's asset structure through either the sale or planned run-off of readily marketable assets specifically set aside to meet liquidity needs. Because many banks tend to have little influence over the size of their total liabilities, liquid assets enable a bank to provide funds to satisfy increases in trade area loan demand. Banks which rely solely on asset management focus on adjusting the price and availability of credit and the level of liquid assets held in response to changes in customer asset and liability preferences. Assets normally assumed to be liquid sometimes are not liquidated easily and/or profitably. For example, investment securities may be pledged against public funds and repurchase agreements, or may be depreciated heavily because of interest rate changes. Trading accounts may not be reduced materially because banks must maintain adequate inventories. On the other hand, holding liquid assets for liquidity purposes becomes less attractive because of thin profit spreads and capital maintenance requirements.

The amount of liquid assets a bank should maintain is a function of the stability of its funding structure and the potential for rapid loan portfolio expansion. Generally, if the sources of funds are stable and loan demand is predictable, a relatively low allowance for liquidity is required. A higher allowance for liquidity is required when:

1 The competitive environment is such that customers can invest in alternative instruments;
2. Recent trends show substantial reduction in large liability accounts;
3. Substantial deposits are short-term municipal special assessment-type accounts;
4. A substantial portion of the loan portfolio consists of large problem credits with little likelihood of reduction;
5. Large unused lines of credit or commitments are expected to be utilized in the near future;
6. A concentration of credits has been extended to an industry with present or anticipated financial problems; or
7. A close relationship exists between individual demand accounts and principal employers in the trade area who have financial problems.

Asset liquidity is of primary importance in asset management strategies. Liquid assets provide insurance as well as yield. To maximize profitability, management must carefully weigh the full return on liquid assets (yield plus insurance value) against the expected higher return associated with less liquid assets. Income derived from higher yielding assets may be offset if a forced sale is necessary due to adverse balance sheet fluctuations.

Seasonal, cyclical, or other factors may cause aggregate outstanding loans and deposits to move in opposite directions, resulting in loan demand which exceeds available funds. A bank relying strictly on asset management would restrict loan growth to that which could be supported by available deposit funds and short-term liquid assets. As an alternative, liquidity needs may be met through liability sources such as Federal funds purchased, borrowings from the Federal Reserve Bank, sale of assets under agreements to repurchase, etc., allowing the bank to meet its loan demands. The decision whether or not to use liability sources should be based upon a complete analysis of factors, the costs involved, as well as the degree of management expertise available. In addition to serving as a supplement to asset liquidity, liability sources may serve as an alternative even when asset sources are available. The number of banks relying solely on managing the asset structure to meet liquidity needs is declining rapidly.

An example of managing the asset structure to meet liquidity needs is the mortgage swap program created through Federal Home Loan Mortgage Corporation (FHLMC or Freddie Mac). Basically this program involves selling seasoned mortgage loans at par to the FHLMC which in turn sells the bank a participation certificate (PC) in these loans, fully guaranteed as to principal and interest. The guarantee provides the element of liquidity as the PC's are now eligible for sale as repurchase agreements or pledge against deposits and are more readily marketable at a higher price than the original unguaranteed mortgages.

IV. LIABILITY MANAGEMENT

Liquidity needs can be met through discretionary acquisition of funds on the basis of interest rate competition. This does not preclude the option of selling assets to meet needs, and conceptually, the availability of asset and liability options may result in a lower liquidity maintenance cost. The alternative costs of available discretionary liabilities can be compared to the opportunity cost of selling various assets. The major differences between liquidity in larger banks contrasted with smaller banks is that, in addition to deliberately designing the composition of the asset side of the balance sheet, larger banks are generally better able to control the level and composition of their liabilities. When funds are required, larger banks usually have a variety of options from which to select the least costly method of generating funds. In addition, discretionary access to the money market may reduce the size of the liquid asset "buffer" needed if the bank were primarily dependent upon asset management to obtain needed funds.

The ability to obtain additional liabilities, rather than the level of existing liabilities, represents liquidity potential. The marginal cost of liquidity, the cost of incremental funds acquired, is of paramount importance in evaluating liability sources of liquidity.

Consideration must be given such factors as the frequency with which the bank regularly refinances maturing purchased liabilities, as well as an estimate of the bank's ability to obtain funds in the money market. The obvious difficulty in estimating the latter is that, until the bank goes to the market to borrow, it cannot determine with confidence if funds will be available at a price which will maintain a positive yield spread for the bank. Changes in money market conditions may cause rapid deterioration in a bank's capacity to borrow at a profitable rate. In this context, liquidity represents the ability to attract funds in the market when needed at a reasonable cost.

As previously noted, large banks' access to discretionary funding sources is a function of their position and reputation in the money markets. Although smaller institutions do not have a "name" in such markets, they are not precluded from using liability management. However, the scope and volume of their operations is generally limited.

Although the practice of acquiring funds on a cost competitive basis has enabled many banks to meet expanding customer loan demand, even in the face of volatile interest rates, misuse or improper implementation of liability management can have severe consequences. Examiners and banks should be aware of the following risks associated with the practice of liability management.

1. Purchased funds may not always be available when needed. If the market loses confidence in a bank, the bank's liquidity or even its solvency may be threatened. Banks depending heavily upon purchased funds are especially vulnerable to adverse developments particularly when known to the public. An adverse auditor's opinion, a sudden loss of profitability, or economic developments which pose significant threats to a particular institution any precipitate "purchased money runs" which can be devastating. Banks relying on core, insured funds are usually better able to withstand such developments.

2. Overreliance on liability management may cause a tendency to minimize holdings of short-term securities, relax asset liquidity standards, and result in a large concentration of short-term liabilities supporting assets of longer maturity.

   During contracting money supply situations, this could cause an earnings squeeze and a illiquid condition. Funds employed from liability management should be principally placed in assets with matching maturities or which have flexible interest rates.

3. Due to rate competition in the money market, a bank may incur relatively high costs in obtaining funds and may lower credit quality standards in order to invest in higher yielding loans and securities. If a bank is purchasing liabilities to support assets already on its books, the high cost of purchased funds may result in a negative yield spread.

4. Liability management can best be employed by banks having the greatest flexibility in acquiring funds from various sources and the management expertise available to utilize these sources. Banks with limited funding sources should avoid using funds purchased in the money market and rely upon their local market. When there is monetary tightness, credit quality discrimination may develop, making the cost of purchased funds prohibitive to all but a small number of banks.

5. Preoccupation with obtaining funds at the lowest possible cost, without proper consideration given to maturity distribution, intensifies a bank's exposure to the risk of

interest rate fluctuations.

In all banks, and particularly in wholesale-funded ones, management must be constantly aware of the composition and characteristics of its funding sources. Awareness of funding source characteristics is important in forming contingency plans for liquidity crises.

Real or rumored deterioration in the financial condition of a bank because of asset quality, fraud, or external economic developments will affect wholesale funding adversely. The extent of that reaction depends on the bank's funding sources and their risk tolerance. Factors affecting risk tolerance of funds providers include their:

1. Obligations to fiduciary investors, such as money market funds, trust funds and pensions. Reliance on rating firms. Bylaws or internal guidelines may prohibit placing funds in banks that have low ratings.

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3. Obligations to disclose information on investment holdings.

4. Self-interest in maintaining an orderly marketplace. For this reason major banks are slow in eliminating funding to other banks.

5. Lack of a personal contact at the bank to provide timely and accurate information about its financial condition.

V. FUNDS MANAGEMENT POLICIES AND MANAGEMENT REPORTING SYSTEMS

As more banks attract funds on a cost competitive basis, the need for properly supervised funds management policies increases. No longer is having sufficient liquid assets to meet loan demand or deposit withdrawals enough even for the small bank. A good policy should generally provide for forward planning which takes into account the unique characteristics of the bank, management goals regarding asset and liability mix, desired earnings, and margins necessary to achieve desired earnings. Forward planning should also take into account anticipated funding needs and the means available to meet these needs. The policy should establish responsibility for funds management decisions and provide a mechanism for necessary coordination between the different departments of the bank. This responsibility may be assigned to a committee. Whether the responsibility for funds management rests with a committee or an individual, asset/liability strategies should be based on sound, well-deliberated projections for interest rate movements. The board of directors and the examiner should be satisfied that the assumptions used in the interest rate projections are valid, and the strategies employed are consistent with projections.

The following are examples of typical guidelines established by a sound asset/liability policy:

1. Provide for the establishment of an asset/liability committee. Define who will be on the committee, what its responsibilities will be, how often it will meet, how it will obtain input from the board and how its results will be reported back to the board.

2. Provide for a periodic review of the bank's deposit structure. Include the volume and trend of total deposits and the volume and trend of the various types of deposits offered, the maturity distribution of time deposits, rates being paid on each type of deposit, rates being paid by trade area competition, caps on large time deposits, public funds, out-of-area deposits, and any other information needed.

3. Provide a method of computing the bank's cost of funds.

4. Provide a method of loan pricing, which would include cost of funds, overhead and administrative costs, and desired profits. Determine when to use fixed rates and when to use floating rates.

5. In conjunction with the bank's investment policy, determine which types of investments are permitted, determine the desired mix among those investments, determine the maturity distribution and what amount of funds will be available, and review pledging requirements.

6. In conjunction with the bank's loan policy, determine which types of loans are permitted and desirable, the desired mix among different types of loans, the volume of loans compared to total deposits and total loans, upcoming loan maturities, and loan commitments outstanding.

7. Provide for a periodic calculation to determine the extent to which the bank is funding long-term assets with short-term liabilities. Establish a target ratio and/or parameters.

8. Provide for a periodic calculation to measure interest rate risk exposure at various time horizons. Establish target ratios for RSA/RSL and gap as a percentage of total assets.

9. In conjunction with the bank's liquidity policy, review performance with the bank's liquidity ratio target. Review compliance with required legal reserves.

10. Review possible alternative sources of funds. Establish bank lines and possibly test their use periodically.

11. Provide for tax planning.

Management Reporting System

A necessary prerequisite to sound funds management decisions is a workable management information system. Reports containing certain basic information should be prepared and reviewed on a regular basis. Report formats and their contents will vary from bank to bank depending on the characteristics of the bank and its funds management methods and practices. Normally a good management information system will contain reports detailing the following:

1. Liquidity needs and the sources of funds available to meet these needs (the maturity distribution of assets and liabilities and expected funding of commitments would prove useful in preparing this report);

2. Asset yields, liability costs, net interest margins and variations both from the prior month and budget (reports should be detailed enough to permit an analysis of the cause of interest margin variations);

3. Longer term interest margin trends;

4. The bank's rate sensitivity position;

5. Any exceptions to policy guidelines; and

6. Economic conditions in the bank's trade area, interest rate projections, and any anticipated deviations from original plan/budget.

Additional types of reports may be necessary depending on the bank's circumstances. Funds management decisions should be made on an informed basis and to accomplish this, a good management information system is necessary.

Management's liquidity policies, practices, and reporting system should be assessed relative to the following broad examination objectives:

1. To evaluate the management of the institution's assets and liabilities;

2. To determine if management is adequately planning for liquidity needs and if the institution has the means to meet anticipated and potential liquidity needs;

3. To determine if reasonable guidelines have been established for the rate-sensitivity position and to determine if the institution is operating within established and reasonable parameters;

4. To determine if internal management reports provide the information necessary to serve as a basis for informed funds management decisions and monitoring the results of those decisions; and

5. To initiate corrective action when deficiencies are noted in any of the above.

VI. BANK HOLDING COMPANIES

Discussion of liquidity and funds management thus far has addressed independent banks. While the principles are also generally true of holding company subsidiaries, there are additional factors that need to be considered. There are basically two types of holding companies; first, the multibank holding company that also may own nonbank subsidiaries, and second, the small one bank holding company used as financing vehicle for the acquisition debt of a subsidiary bank. Each of these types has an influence on the liquidity and funds management function of the bank.

For larger holding companies, many of the management decisions and planning functions already discussed for asset and liability management are performed at the corporate level for all subsidiary banks. Loans can be shifted through sales or participations within the affiliated group from banks with excessive loan demand to others with inadequate loan demand. Purchased liabilities can be attracted at the corporate level and inserted anywhere in the affiliated group. Therefore, in viewing liquidity or interest sensitivity in subsidiary banks, it can be misleading to review only the mix, maturity and rate sensitivity of an individual bank's balance sheet. Examiners should determine the organization's approach to asset and liability management, where decisions are being made, and what alternatives or options are available through the parent or within the organization to provide for liquidity and control of rate sensitivity. While there is no reason to criticize the reality of centralized planning and decision making, there remains a legal responsibility of the local bank's board of directors for managing its affairs. It is important that they be aware of the bank's strategy and performance and provide informed approval. The difficulties in funds management which may be encountered in holding company subsidiary banks, in addition to what generally occurs in an independent bank, are often the result of the independent financing activities of the parent company. The typical bank holding company balance sheet has assets of a small amount of cash and fixed assets, some goodwill, and the investment carrying value of its subsidiaries, offset by debt and equity. Such a company, with no independent source of revenue, no liquid assets and a leveraged balance sheet, would generally not be a good candidate for obtaining credit. In spite of the legal separation of a parent from its subsidiaries, the financial markets provide credit to holding companies on the assumption the subsidiary bank's resources are available to support the parent company's debt. It is the bank(s) that makes the parent creditworthy and it is ultimately the bank(s) which will provide funds for debt service especially in times of difficulty. Annual financial statements provide the necessary information for calculation of two useful ratios for reviewing the liquidity position of the parent company; fixed charge coverage and cash flow match.

Fixed charge coverage is a ratio that measures the ability of the parent company to cover its interest expense. The ratio is computed by determining how many times the parent's total interest expense is "covered" by the net of parent operating income (excluding "equity in undistributed earnings") less parent operating expenses other than interest and taxes. Interest expense is defined to include one- third of parent rental expense (if any), as though premises and equipment had been mortgaged rather than leased. A bank holding company parent's position is generally considered comfortable if it shows a coverage ratio of 2 times or better. A ratio of less than 1 points to a condition of cash flow deficit, without taking debt amortization or shareholder dividends into consideration. This ratio can be misleading if there is an abnormal dividend payout from subsidiaries, the major source of income to a parent. If the payout of all subsidiaries is only 20% (but could be 60%), the coverage ratio could be very low, perhaps well under 2 times. Conversely, if the payout of earnings is an unsustainably high 90%, the coverage ratio could temporarily appear adequate. Therefore, it is essential to be aware of actual dividend payout from subsidiaries to the parent before final interpretation of this ratio.

Cash flow match is a more severe test of parent cash availability to meet not only interest expenses, but operating expenses, taxes, shareholder dividends, and debt maturities. Cash "sources" are defined as all parent operating income plus tax credit (or minus taxes paid). Cash "uses" are defined as operating expenses (including interest), dividends to shareholders, and debt principal due in one year. A coverage ratio of 1.10 "times" (i.e., cash sources are 110% of uses) is generally considered comfortable. Many highly profitable, underleveraged bank holding companies (BHC's) reflect ratios of 1.20 times or better. Ratios under 1.00 need additional study, as the presumption is that cash flow is insufficient to maintain BHC credit, which bears upon the viability of the institution. Like the fixed-charge coverage test, this ratio also needs adjustment to be interpreted in light of subsidiaries' dividend levels. The amount of debt due in one year usually does not reflect a normalized amortization schedule, since balloon and bullet maturities create a year-to-year instability in the "amount due". If sufficient data are available, it would be more appropriate to arbitrarily introduce a "normalized" amortization schedule based on the average life of parent debt outstanding. Finally, not all parent debt needs to be serviced from parent operating income. Much of this debt is covered or matched by advances to profitable subsidiaries, so that servicing of principal is in essence automatic. Therefore, a true cash flow test would apply only to "uncovered" parent debt and only the amortization of this portion needs to be normalized in the manner described.

The small one-bank holding company normally has no other subsidiaries and is merely a financing vehicle for the dept incurred in the purchase of the subsidiary bank. The liquidity and funds management concerns of the larger multi-bank holding companies are generally not applicable. The only asset and liability management effect is an effort to establish a favorable tax position so that when a consolidated tax return is prepared there will be taxable income available to absorb the deductible interest expense paid by the parent. The least complicated way to achieve this is to reduce the volume of tax-exempt securities and reinvest in taxable investments, usually resulting in lower bank after tax earnings. The tax due from the bank is calculated as if it were an independent entity and payment is made to the parent holding company. Ordinarily, the holding company has expenses to offset the bank's taxable income, thus the ultimate tax payment is less than the bank's payment to the parent holding company. The parent utilizes the difference as a source of debt service.

VII. EXAMINATION REPORT TREATMENT OF LIQUIDITY AND FUNDS MANAGEMENT

The importance of liquidity is reflected in the fact that it is one of the five components of the CAMEL rating. Liquidity is rated "1" through "5" with respect to; the volatility of deposits, reliance on interest-sensitive funds and frequency and level of borrowings, technical competence relative to structure of liabilities, availability of assets readily convertible into cash, and access to money markets or other ready sources of cash. Ultimately, the bank's liquidity must be evaluated on the basis of its capacity to promptly meet the demand for payment of its obligations and readily fill the reasonable credit needs emanating from the communities it serves. In appraising liquidity, attention should be directed to the bank's average liquidity over a specific time period as well as its liquidity position on a particular date. Consideration should be given, where appropriate, to the overall effectiveness of asset-liability management strategies and compliance with the adequacy of established liquidity policies. The nature, volume and anticipated usage of bank's credit commitments are also factors to be weighed in arriving at an overall rating for liquidity.

A liquidity rating of "1" indicates a more than sufficient volume of liquid assets and/or ready and easy access on favorable terms to external sources of liquidity within the context of the bank's overall asset-liability management strategy. A bank developing a trend toward decreasing liquidity and increasing reliance upon borrowed funds, yet still within acceptable proportions, may be accorded a "2" rating. A liquidity rating of "3" reflects an insufficient volume of liquid assets and/or reliance on interest-sensitive funds that is approaching unreasonable proportions for a given bank. A rating of "4" represents an increasingly serious liquidity position. Banks with a liquidity position so critical as to constitute an imminent threat to continued viability should be accorded a "5" rating. Such banks require immediate remedial action or external financial assistance to allow them to meet their maturing obligations.